

Spirent Communications plc 2018 Full Year Results

March 2019

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Delivering Against Our Strategic Priorities

Sharp focus on target markets

Highlights

- Demand increased for 400G Ethernet test
- Expanded enterprise and government security wins
- 5G development wins
- VisionWorks expanded in all current customers plus three new customers

Innovate

- Market leadership for 100G and 400G Ethernet testing
- National Instruments collaboration
- Key Account Executives drive new business opportunities

Strong financial and operational platform

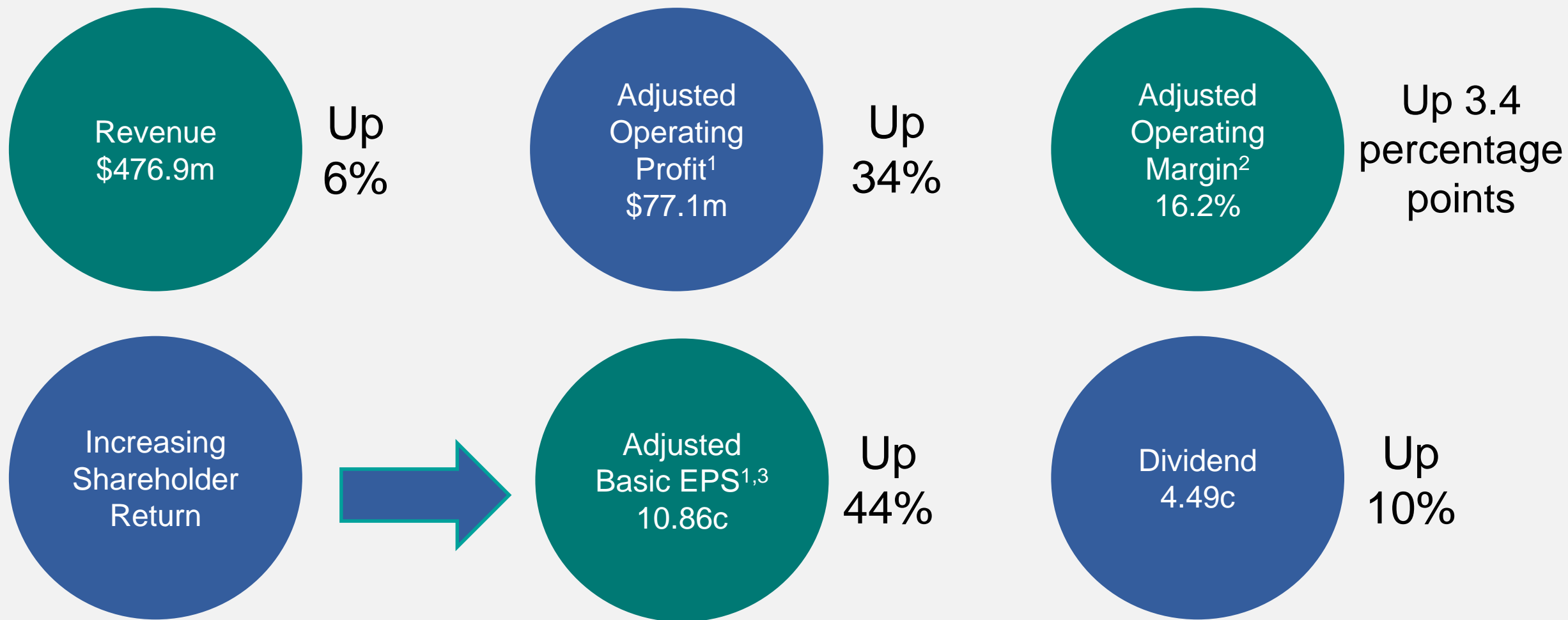
- Portfolio delivering revenue growth with improved operating margin
- Superior EPS growth
- Effective investment decisions
- Strong balance sheet

2018 Full Year Financial Results

Paula Bell
Chief Financial Officer



Key Metrics



Change in revenue, adjusted operating profit and adjusted operating margin relate to ongoing businesses i.e. excluding divestments made in 2017

(1) Before exceptional items, acquired intangible asset amortisation and share-based payment

(2) Adjusted operating profit as a percentage of revenue

(3) Before gain on divestment, tax on items in note (1), prior year tax and revaluation of deferred tax assets due to US tax reform (2017)

Financial Summary

\$m

	Group 2018	Ongoing Businesses ¹ 2017	Group 2017	
Order intake	470.0	442.6	447.8	
Revenue	476.9	448.9	454.8	■ Orders and revenue growth delivered – both up 6%
Gross profit	344.5	319.8	325.0	
Gross margin	72.2%	71.2%	71.5%	■ Strong contribution to earnings from demand for high-speed Ethernet and Positioning
Adjusted operating costs ²	(267.4)	(262.3)	(266.1)	
Adjusted operating profit ²	77.1	57.5	58.9	■ Adjusted operating profit up 34%
Adjusted operating margin ²	16.2%	12.8%	13.0%	■ EPS up 44%
Profit before tax	61.2		46.6	■ Healthy cash balance – strong cash conversion
Net cash	121.6		128.4	■ Dividend increase 10% (14% in £)
EPS ^{2,3} (cents)	10.86		7.55	■ Tax rate outlook 15-16%
Effective tax rate ⁴	15.4%		22.1%	
Dividend per share (cents)	4.49		4.08	
Special dividend per share (cents)	-		5.00	

(1) Excluding businesses divested in 2017

(2) Before exceptional items, acquired intangible asset amortisation and share-based payment

(3) Before gain on divestment, tax on items in note (2), prior year tax and revaluation of deferred tax assets due to US tax reform (2017)

(4) Adjusted tax charge as a percentage of adjusted profit before tax

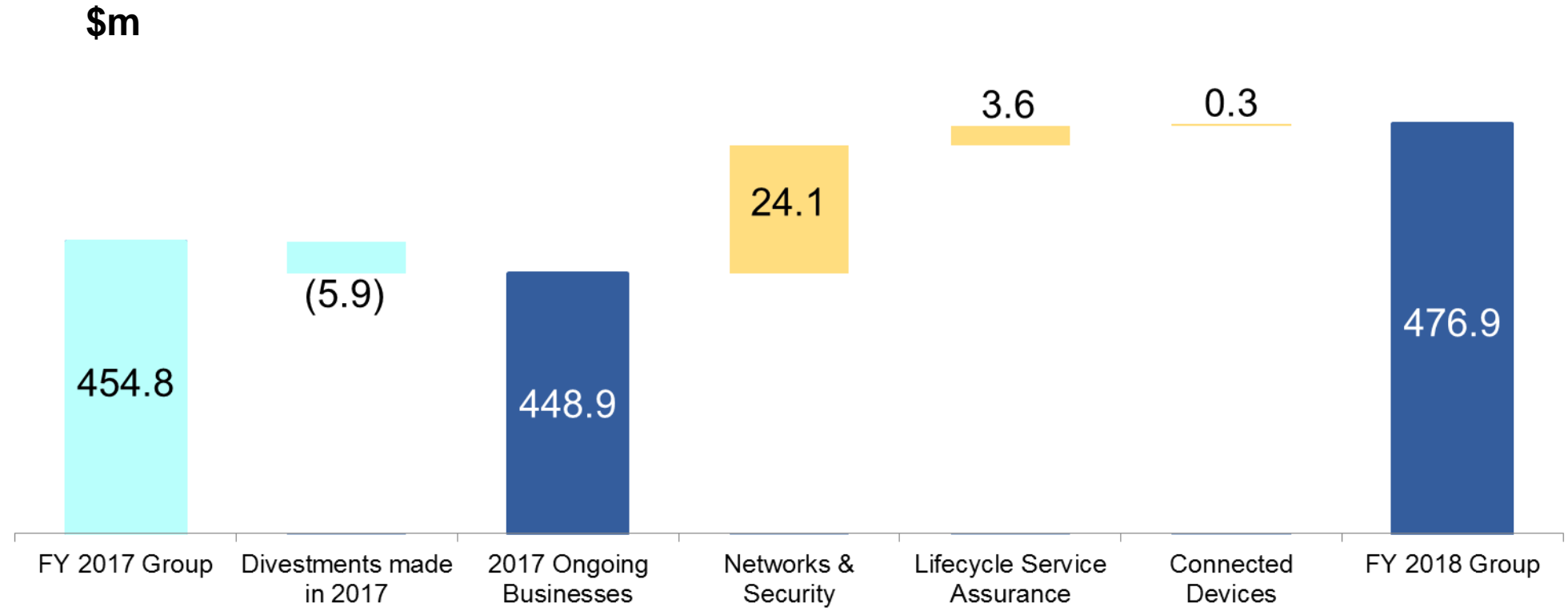
Strong Portfolio Performance

Ongoing Businesses

\$m		Revenue		Operating profit ¹		Operating margin ¹	
		2018	2017 ²	2018	2017 ²	2018	2017 ²
GROWTH FOCUS	Networks & Security	285.1	261.0	56.4	43.9	19.8%	16.8%
	Lifecycle Service Assurance	112.8	109.2	17.4	17.9	15.4%	16.4%
TRANSITION	Connected Devices ²	79.0	78.7	10.5	3.8	13.3%	4.8%
Corporate		-	-	(7.2)	(8.1)	-	-
Group total		476.9	448.9	77.1	57.5	16.2%	12.8%

- Mid to high teen margins are representative of our short to medium term expectations

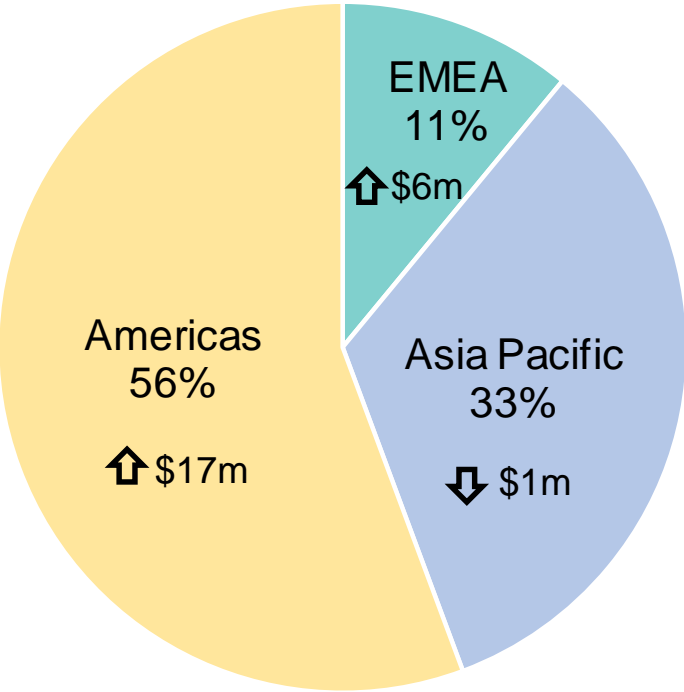
Revenue Bridge – 6% Growth



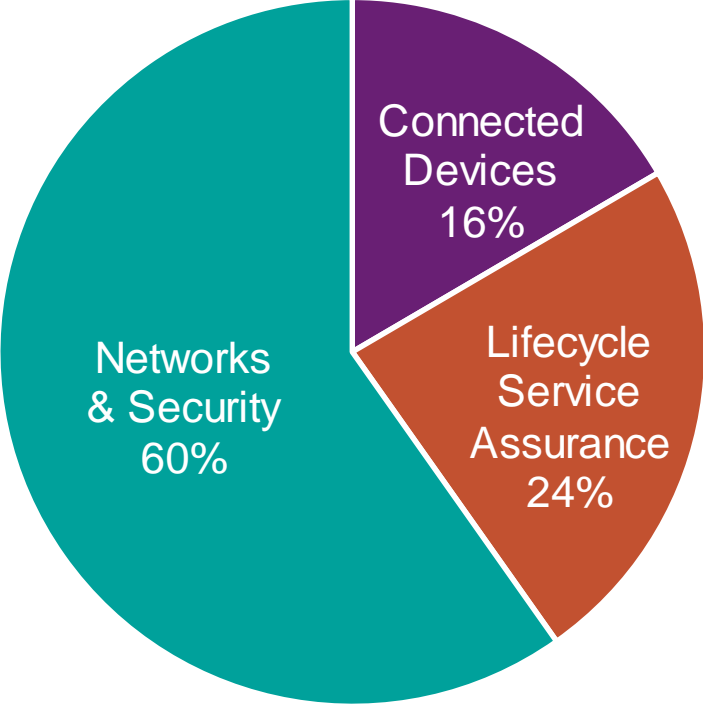
- Strong 400G pick up and record US government spend for GPS simulators
- VisionWorks product sales increasing in Lifecycle Service Assurance
- Revenue stabilised in Connected Devices

Strong Diversification

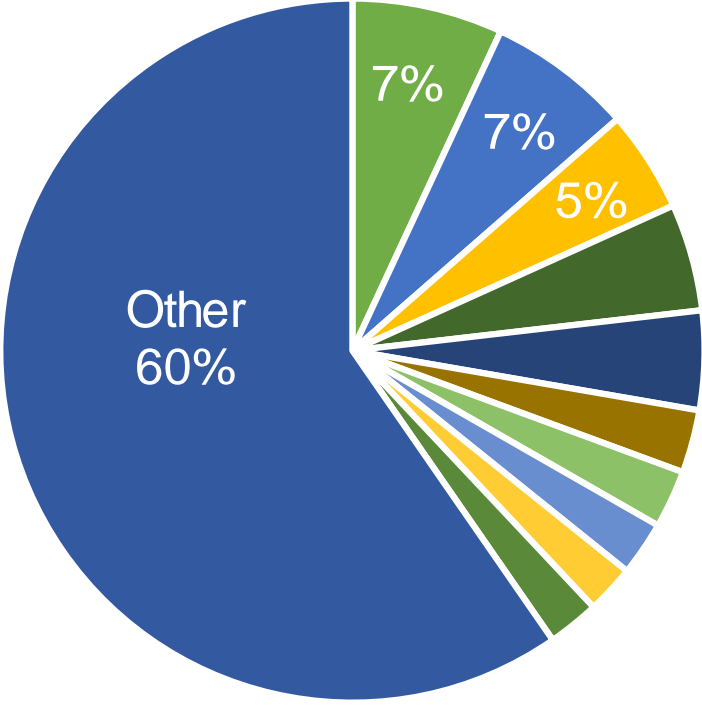
Revenue by geography



Revenue by segment



Revenue by customer



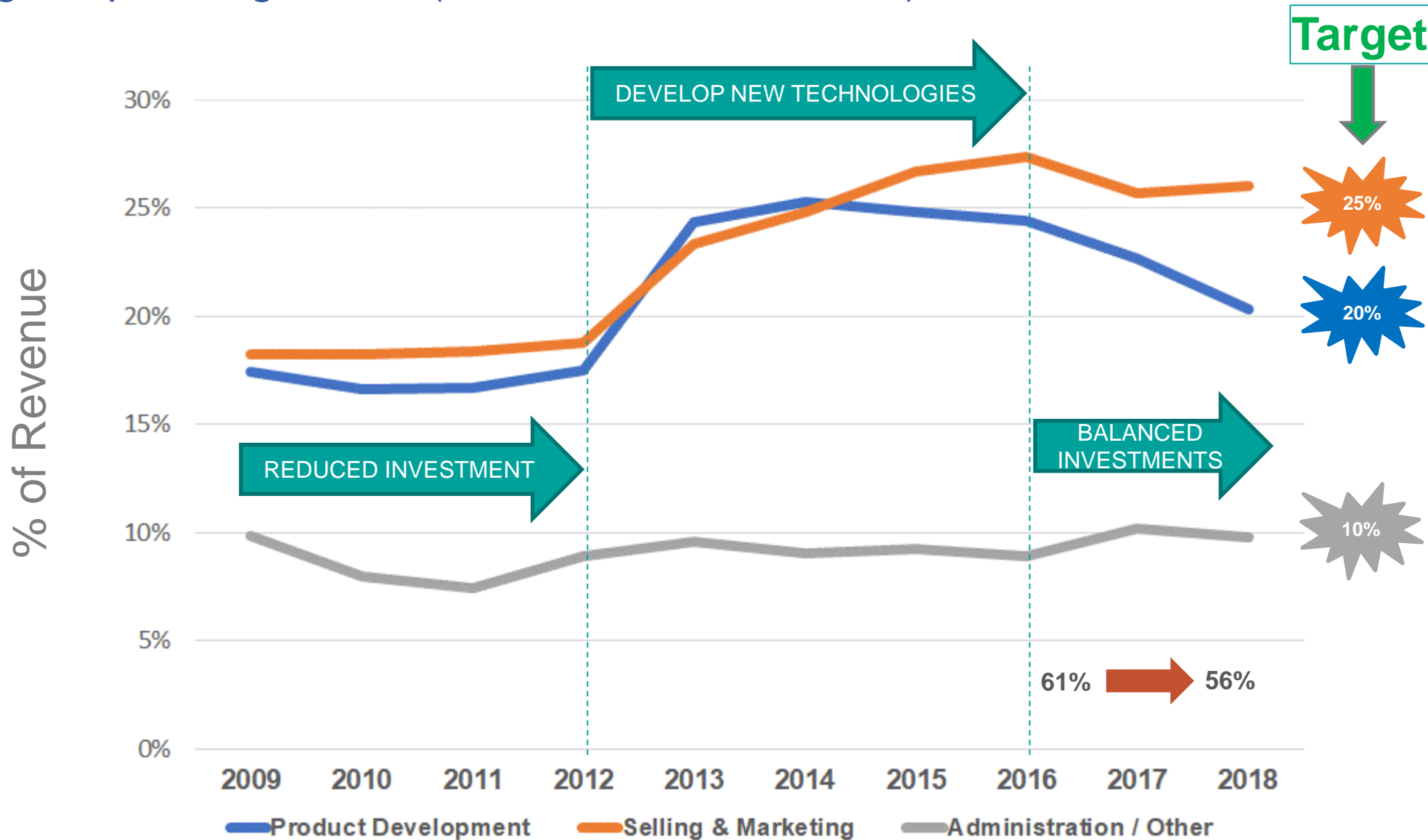
- Americas and EMEA growth driven by 400G Ethernet, Security and US government GPS demand
- Asia Pacific: growth in China offset by some softness in SE Asia
- Good portfolio balance with no overweight customer dependency
- Top 10 customers deliver 40% of total revenue

Focused Cost Management

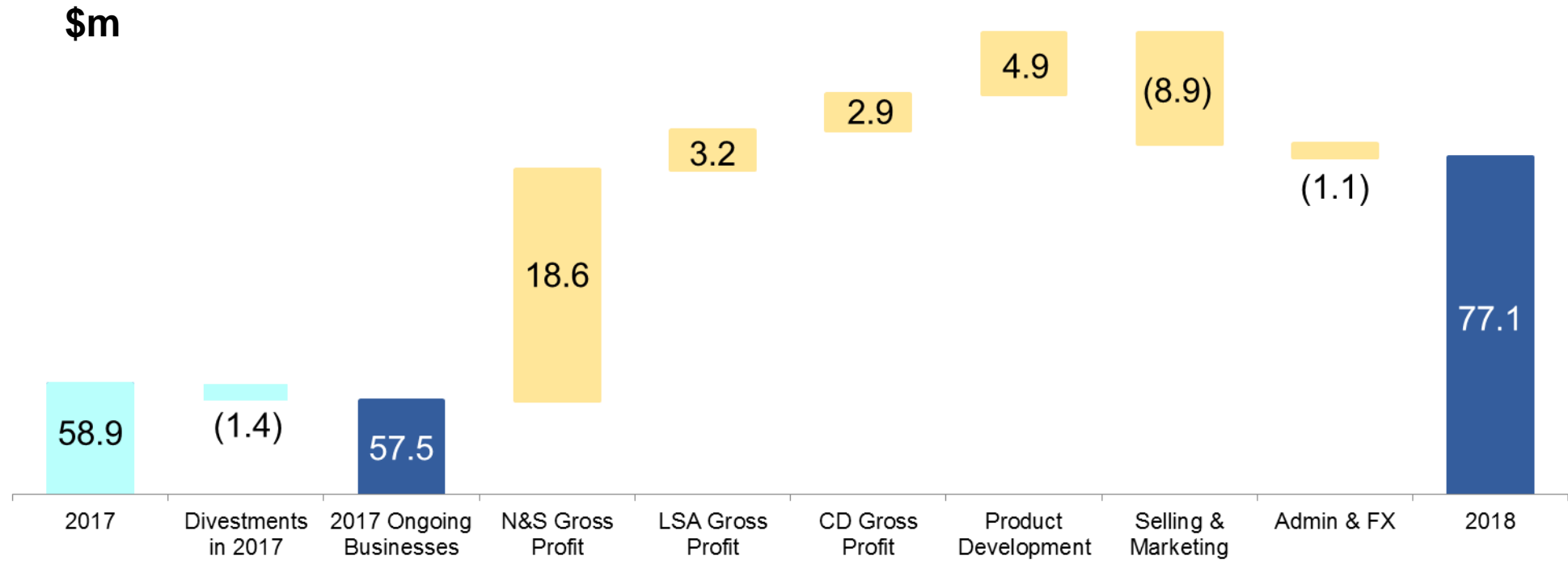
\$m	2018	2017	2016
Product development	96.9	103.0	111.7
Selling and marketing	123.9	116.8	125.4
Administration ¹	46.0	44.7	44.1
Total	266.8	264.5	281.2
FX loss/(gain)	0.6	1.6	(3.4)
Total adjusted operating costs ¹	267.4	266.1	277.8

- Cost inflation of c.\$9m has been broadly mitigated with cost initiatives
- Improved effectiveness of our engineering resource
- Enhanced marketing investment to support new technologies and global reach

Target Operating Model (Cost as % of Revenue)



Operating Profit – Up 34%



- All segments contributed to increasing gross profit
- Strong growth in high-speed Ethernet and US government defence spend for Positioning products
- Cost actions driving improved product engineering effectiveness
- Marketing investment to support growth in LSA and N&S in 2018 and into 2019

Exceptional Items

\$m

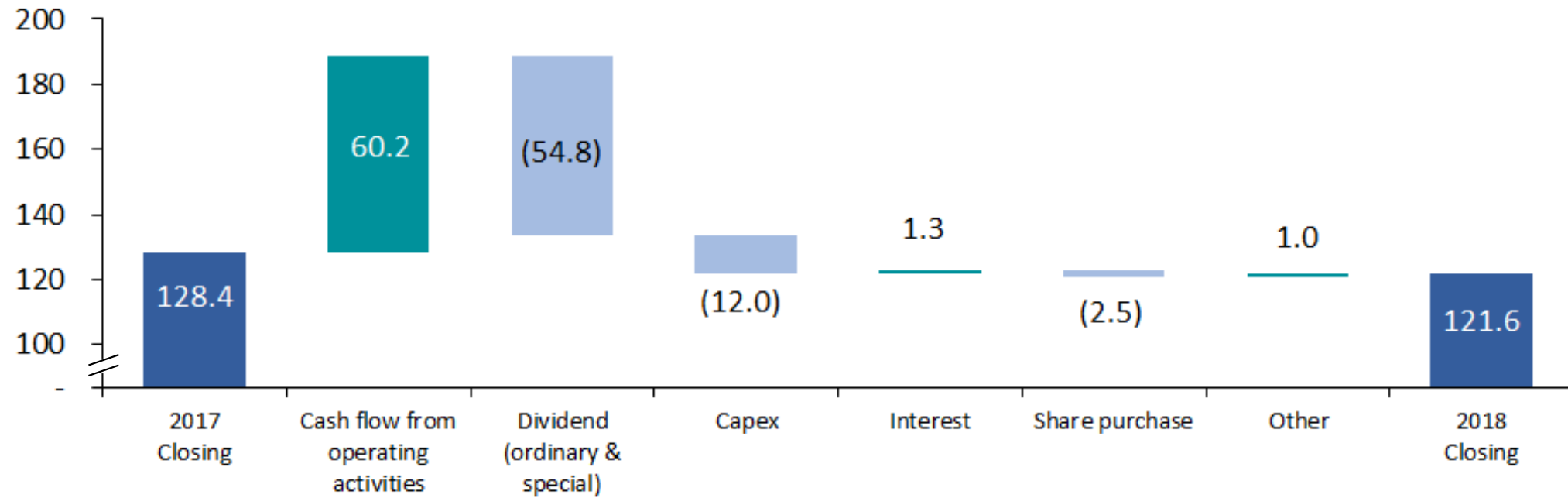
Pension GMP equalisation
 French import duty dispute
 Portfolio review and sales organisation restructuring
 Strategic review of Connected Devices

2018	2017
4.0	-
9.1	-
-	5.4
-	1.3
13.1	6.7

- 2018 includes:
 - GMP equalisation cost for the UK defined benefit pension plan following Lloyds Bank inequalities case ruling
 - Notice received of an impending French import duty demand relating to a classification dispute, dating back to 2011

Cash Flow

\$m



- In year cash flow returned to shareholders
- Strong balance sheet maintained
- Proposed 10% increase to dividend

Driving Improving Returns

Invest in areas where the following criteria are met... to drive improving margins

RIGHT MARKETS



RIGHT CAPABILITY



SUSTAINABLE GROWTH

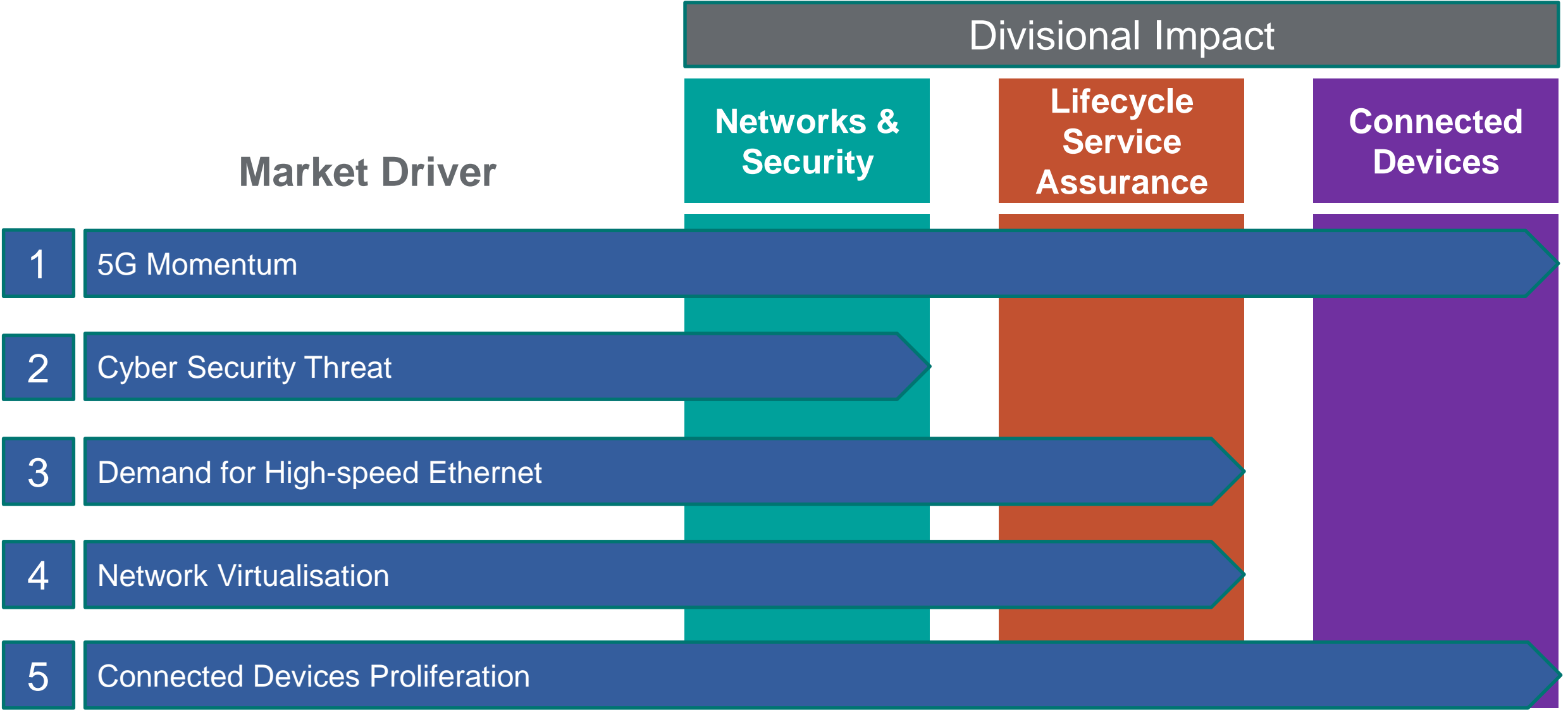
- Growth platforms: -
 - Networks & Security formed of 3 businesses with leading market technology – growth drivers
 - 5G
 - Virtualisation
 - Cyber security
 - Lifecycle Service Assurance – focus on expanding customer breadth for VisionWorks
 - Connected Devices – launch of 5G product H2 2019
- Target operating model in place, invest carefully
- Operating margin now at 16.2% (2016: 10.2%)

Strategic Priorities

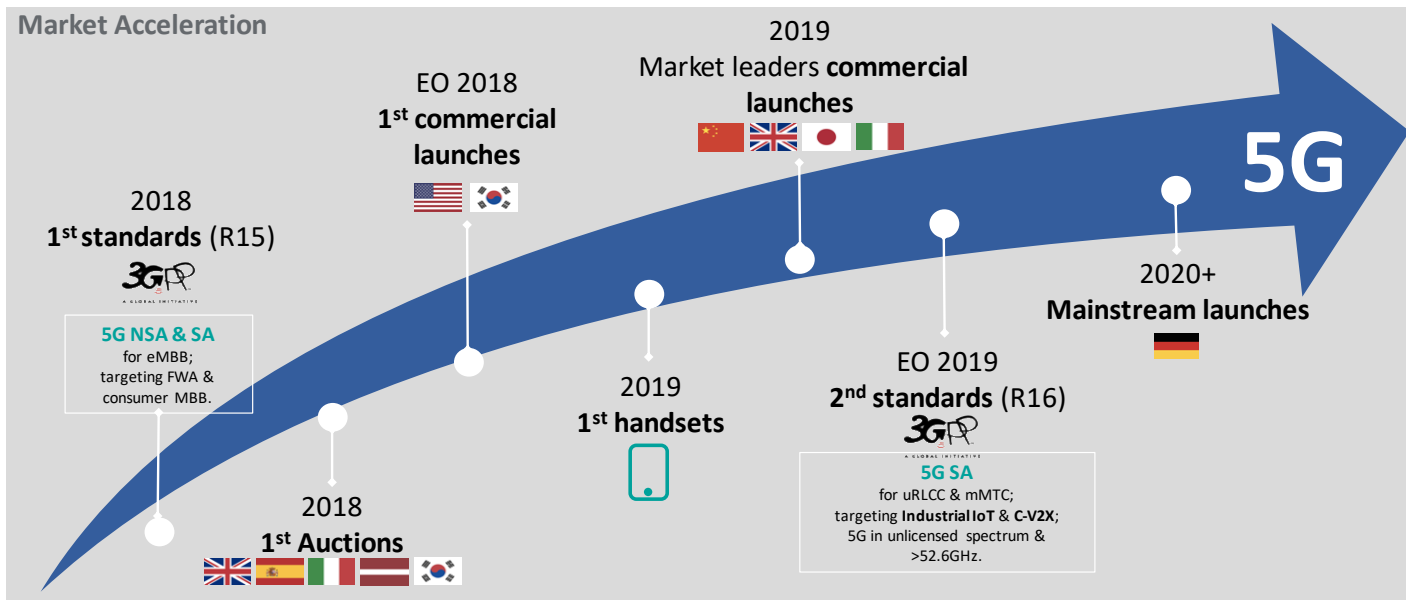
Eric Hutchinson
Chief Executive Officer



Market Drivers Remain Unchanged



5G technology transforming the way we live and work



- 5G impact to infrastructure brings many customer challenges
- Significant capital expenditure to support 5G is ongoing
- Asia pressing ahead – 5G connectivity in China accelerating

Networks & Security

- High-speed Ethernet to support 5G buildout
- Test and assess security readiness

Lifecycle Service Assurance

- 5G Development
- 5G Field Trial & Buildout
- Active service assurance & analytics

Connected Devices

- 5G and IoT device testing for location and video

Develop

Simplify 5G

Reducing the complexity & economics of **testing, verifying** & delivering 5G

Accelerate 5G

Safely accelerating 5G **innovation & time to market** of new services

Operate

Assure 5G

Operationally assuring 5G delivers the new experiences, revenues & savings



Automation



Emulation



Test Methodologies



Active Testing

Test reductions - Faster & safer launches - Increased quality - \$m's in savings

Assuring the Promise of 5G in 2018



Simplifying 5G complexity



Accelerating time to market



Assuring 5G delivers



Fostering 5G innovation



Industries broadest and most innovative set of 5G Test & Service Assurance solutions

Over 30 customer wins in 2018 with OEMs, NEMs & SPs

New collaborations with 5G industry innovators:



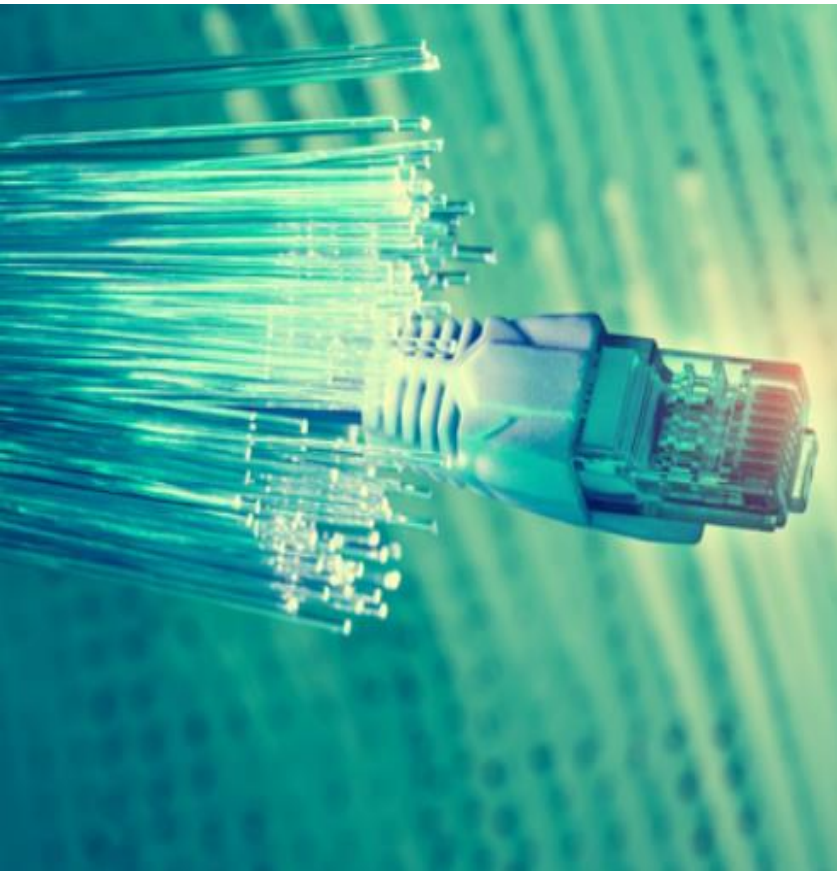
- Build on our market leadership and market share gains in 100G and 400G Ethernet performance test
- Grow our cyber security business
 - Grow business in vendors, service providers, enterprises and government
 - Launch our new Data Breach Emulator
 - Support NetSecOPEN
- Extend our market leadership and market share gains in positioning solutions
 - Grow business in USA and China
 - Expand business in commercial segments
 - Explore the autonomous vehicles segment



Market	~ \$810M
Market Growth p.a. 2018-2021	~ 4-6%

Tier 1 Network Equipment Manufacturer

Assuring the promise of *first time to market* of next-generation solutions with Spirent TestCenter

**Situation**

Network Equipment Manufacturer

Wants to be the leader in new 400G technology solutions rollout

Looking for company to assure their first to market advantage with high-speed Ethernet technology offerings

Solution

400G high-speed Ethernet to be deployed globally

Spirent TestCenter solution with highest density and automation capabilities to seamlessly test Layer 1 to Layer 7

Impact

Confidence to be first to market with new 400G technology solutions launch

Automotive Tier 1

Assuring the promise of lab-based real-world environment modelling

**Situation**

An automotive customer needed to evaluate GNSS receiver performance

Needed to simulate 'real-world' conditions in the lab

An open framework and automation was needed to efficiently test & interoperate

Solution**GNSS7000 & Sim3D**

A comprehensive solution using a GNSS 7000 simulator coupled to our Sim3D environment modelling tool

APIs and PT-TestBench enable interoperability & automation

Impact

Our unique, market-leading solution produced trusted, actionable test results which enabled the customer to undertake the comprehensive product development they required

Reduced the need for drive testing and thus cost of development

- **Complexity.** Cloudification, network automation, artificial intelligence driving change
- Expand adoption of VisionWorks in our North American customers and to new customers
- Extend our market-leadership and market share gains in mobile infrastructure testing with Landslide for 5G development, field trials and service turn up... *in the lab or in the network*



Market	~ \$360M
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Market Growth p.a. 2018-2021	~ 6-8%
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Customers' Challenges

- Launch new services much faster
- Significantly reduce costs
- Find ways to differentiate their services from competitors addressed by network automation



Spirent's Solutions

VisionWorks enables:

- 10x faster service activation and turn up for new networks and services
- Proactive service quality monitoring, avoiding SLA penalties in \$m's
- Rapid isolation of faults across end-to-end networks, saving \$m's
- Faster customer care handling, reducing costs by \$m's and improving customer satisfaction

Tier 1 North American Service Provider

Assuring the promise of *high-throughput data services* with automated turn up and fault isolation

Situation

Service Provider launching LTE data services and advertised specific performance levels

Needed to check customer experience in advance of service launch

When issues occur, quickly isolate problems to a network segment

Solution

VisionWorks

Test agents deployed nationwide to verify customer's perceived throughput

Additional test agents deployed in core network

Agents automatically isolate issues to radio or core network

Impact

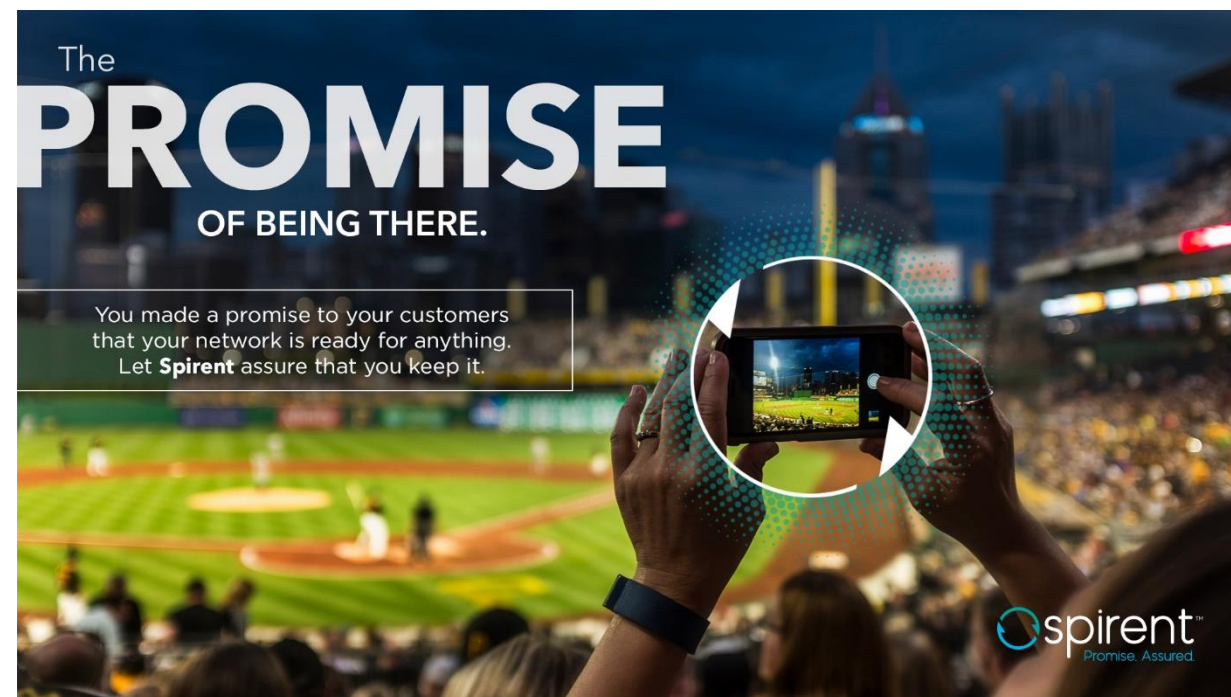
Service updates go live 1.5 months faster

Automated fault isolation

Customer care cost avoidance

ROI < 18 months

- Realise potential for 5G development
- Integration of our applications onto National Instruments 5G platform (H2 2019 product release)
- Enable our current customer base to transition 3G/4G to 5G
- Radio frequency testing required for 5G; our channel emulator meets these requirements



Market	~ \$620M
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Market Growth p.a. 2018-2021	~ 2-4%
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Petroleum Industry Leader

Assuring the promise of *wireless performance* to keep offshore platforms connected to shore

**Situation**

Major oil and gas company

Assure communications from offshore drilling platforms to their private LTE on-shore base stations

Needs to simulate unique real-world RF conditions in the lab for MIMO LTE and Wi-Fi scenarios

Solution

The Spirent team tailored a solution based on the **Vertex RF Channel Emulator**

Spirent defined a test methodology and solution that simulates the environments, and allows for injection of noise, delays and other anomalies

Impact

The customer is no longer dependent on expensive field testing

Testing budgets are lower, testing cycles are faster and test results are more consistent

Tier 1 North American Service Provider

Assuring the promise of *fast and cost-effective 5G network data performance* at 10Gbit/s+ speeds



Situation

Service Provider wants faster and more cost effective way to verify and evaluate 5G network data performance for new 10Gbit/s+ speeds in lab and at new 5G cell sites

Solution

UMETRIX 5G

5G data experience test system and optimised RAID 10 storage

Evaluates web browsing, file transfer, RF status and diagnostics

Impact

Repeatable and predictable testing (lab and network)

More than 80% storage reduction

Reduced cost and increased quality

Operational Excellence

Building a strong operational platform

- Key account management implementation
- Global partner programme to extend reach
- New '**Promise. Assured.**' brand launched
- Talent management review complete
- Leadership programme initiated
- Site review – some consolidation
- Sustained cost effectiveness
- 2019 focus - Go to Market strategies



Sharp focus on target markets

Innovate

**Strong financial and
operational platform**

Well positioned for growth

- Market drivers remain positive
- 5G developments accelerate
- Clear technology leadership positions
- Lifecycle Service Assurance solutions adoption
- Cyber security penetration into enterprises and government customers
- Strong technical and operational platform in place
- Second half weighting remains
- Outlook - steady profitable growth

Q&A



Financial Appendix



Income Statement

\$m	Reported 2018	Ongoing businesses ¹ 2017	Reported 2017
Revenue	476.9	448.9	454.8
Gross profit	344.5	319.8	325.0
Product development	(96.9)	(101.8)	(103.0)
Selling and marketing	(123.9)	(115.0)	(116.8)
Administration	(46.6)	(45.5)	(46.3)
Adjusted operating profit	77.1	57.5	58.9
Adjusting items:			
Exceptional items	(13.1)		(6.7)
Acquired intangible asset amortisation	(3.7)		(6.3)
Share-based payment	(2.8)		(2.2)
Operating profit	57.5		43.7
Net finance income	1.3		0.3
Gain on divestment	2.4		2.6
Profit before tax	61.2		46.6
Tax	(5.4)		(17.6)
Profit after tax	55.8		29.0
Adjusted basic earnings per share (cents)	10.86		7.55

Networks & Security

\$m	2018	2017
Revenue	285.1	261.0
Gross profit	205.3	186.7
Gross margin	72.0%	71.5%
Product development	(53.0)	(53.6)
Other expenses ¹	(95.9)	(89.2)
Operating profit ¹	56.4	43.9
Operating margin ¹	19.8%	16.8%

- Market-leading technology underpins revenue growth – 400G/GPS/Security
- Product marketing investment increased to develop medium term solutions for automotive and virtual
- Strong operating margin growth

Lifecycle Service Assurance

\$m	2018	2017
Revenue	112.8	109.2
Gross profit	87.9	84.7
Gross margin	77.9%	77.6%
Product development	(29.6)	(30.9)
Other expenses ¹	(40.9)	(35.9)
Operating profit ¹	17.4	17.9
Operating margin ¹	15.4%	16.4%

- Further expansion of VisionWorks sales
- Product development synergies from consolidation of assurance activities following 2017 organisation restructure
- Marketing investment to support scaling the business
- Well positioned to expand customer footprint in 2019

Connected Devices

\$m	Ongoing businesses		Reported
	2018	2017 ¹	2017
Revenue	79.0	78.7	84.6
Gross profit	51.3	48.4	53.6
Gross margin	64.9%	61.5%	63.4%
Product development	(14.3)	(17.3)	(18.5)
Other expenses ²	(26.5)	(27.3)	(29.9)
Operating profit ²	10.5	3.8	5.2
Operating margin ²	13.3%	4.8%	6.1%

- Material profit turnaround delivered by improved gross margin from product mix and cost management initiatives
- 5G product development underway with new collaboration with National Instruments

(1) Excluding businesses divested in 2017
 (2) Before exceptional items in 2017

Tax Rate Update

	ETR ¹ %
2016	26.9
UK Patent Box	(1.2)
Divestments (DI & DT)	(2.1)
Other	(1.5)
2017	22.1
US tax rate reduction	(5.3)
UK Patent Box	(0.9)
Other	(0.5)
2018	15.4

- Good progress from management initiatives
- US rate reduction from 35% to 21% effective 1 January 2018
- Outlook 15-16%

Foreign Currency

- Our significant foreign exchange (FX) exposure relates to GBP
- Vast majority of revenue is transacted in USD so the impact of FX on revenue is minimal
- Average USD: GBP exchange rate for 2018 of 1.33 compared to 1.29 in 2017, the closing rate at 31 December 2018 was 1.27 vs 1.35 at 31 December 2017
- FX loss of \$0.6m charged to the income statement in 2018 (2017 \$1.6m loss) in relation to:
 - Transaction exposure in UK operations from US dollar sales; and
 - Retranslation of cash balances held in non-domicile currency

Develop

Operate

Connected Devices



Provide automated test systems to accelerate the development of connected devices and to simplify connecting them to the network

Networks & Security



Provide automated performance and security test systems to accelerate development of new devices, networks and applications

Lifecycle Service Assurance



Provide service assurance and analytics solutions for service turn-up, network performance improvement and customer experience management

Automated Testing

Autonomous Service Assurance

Networks & Security Highlights

Revenue \$285.1m +9% growth

- Extended market leadership in 100G and 400G Ethernet performance test
 - Secured key 400G wins in H2
 - Demonstrated highest density 400/200/100/50G test system at Optical Fiber Communication
 - Launched the industry's first 25G network emulator
- Expanded cyber security product capability and sales coverage, >20% orders growth
 - Added new enterprise and government customers
 - Increase in subscription sales
- Extended market leadership in GNSS simulation systems
 - Highest revenue in our 20-year history
 - Launched the industry's first M-Code solution; Security approval granted by the Global Positioning System Directorate



Lifecycle Service Assurance Highlights



Revenue \$112.8m +3% growth

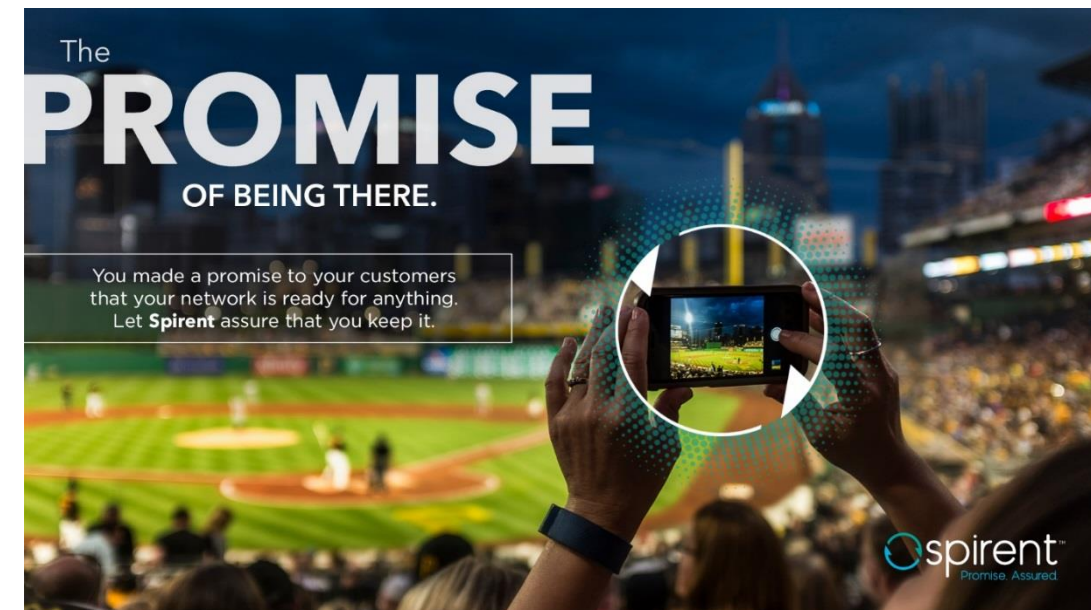
- Expanded VisionWorks at current customers
- Secured three new customers for VisionWorks
- Significant order growth for 10G and 100G probes
- Awarded **Leading Lights Award for Outstanding Test and Measurement Vendor** for our innovative Lifecycle Service Assurance strategy
- 5G drives demand for our Landslide mobile infrastructure test system



Connected Devices Highlights

Revenue \$79.0m - Stabilised

- Collaborating with National Instruments to develop performance test systems for 5G New Radio devices
- Won 5G channel emulation deals
- Strong demand for our Service Experience products
- Demonstrated the world's first 5G Over-the-Air Massive MIMO Beamforming RF Test Bed with China Academy of Information and Communication Technology and Huawei





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